

Preschool Teaching and Learning Standards (2014)

Mathematics

4.1: Children begin to demonstrate an understanding of number and counting.

Preschool Teaching and Learning Standards	Creative Curriculum Objectives / Dimensions	Kindergarten Common Core State Standards Alignment
4.1: Children begin to demonstrate an understanding of number and counting.		K.CC: Counting and Cardinality
	Know Number Names and the Count Sequence	
4.1.1: Count to 20 by ones with minimal prompting.	20 a: counts	K.CC.1: Count to 100 by ones and by tens.
4.1.2: Recognize and name one-digit written numbers up to 10 with minimal prompting.	20 c: Connects numerals with their quantities	K.CC.2: Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
4.1.3: Know that written numbers are symbols for number quantities and, with support, begin to write numbers from 0 to 10.	20 c: Connects numerals with their quantities	K.CC.3: Write numbers from 0-10. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
	Count To Tell the Number of Objectives	
4.1.4: Understand the relationship between numbers and quantities (i.e., the last word stated when counting tells “how many”): a) Count quantities of objects up to 10, using one-to-one correspondence, and accurately count as many as 5 objects in a scattered configuration.	20 a: counts 20 b: quantifies	K.CC.4: Understand the relationship between numbers and quantities; connect counting to cardinality. a) When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.

<p>b) Arrange and count different kinds of objects to demonstrate understanding of the consistency of quantities (i.e. "5" is constant, whether it is a group of 5 people, 5 blocks or 5 pencils).</p> <p>c) Instantly recognize, without counting, small quantities of up to 3 objects (i.e., subitize).</p>	<p>20 b: quantifies</p> <p>20 b: quantifies</p>	<p>b) Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.</p> <p>c) Understand that each successive number name refers to a quantity that is one larger.</p>
4.1.5: Use one-to-one correspondence to solve problems by matching sets and comparing amounts.	20 a: counts	K.CC.5: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.
	Compare Numbers	
4.1.6: Compare groups of up to 5 objects (e.g., beginning to use terms such as "more," "less," "same").	20 b: quantifies	K.CC.6: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.
4.2: Children demonstrate an initial understanding of numerical operations.		
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4.2: Children demonstrate an initial understanding of numerical operations.	<p>20 a: counts</p> <p>20 b: quantifies</p>	K.OA: Operations and Algebraic Thinking
	Understand Addition as Putting Together and Adding to, and Understanding Subtraction as Taking Apart and Taking	

	From	
4.2.1: Represent addition and subtraction by manipulating up to 5 objects: (a) putting together and adding to; and (b) taking apart and taking from.	20 b: quantifies	K.OA.1: Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.
4.2.2: Begin to represent simple addition and subtraction word problem data in pictures and drawings.	20 b: quantifies 14 a: thinks symbolically	K.OA.2: Solve addition and subtraction and word problems, and add and subtract within 10, by using objects or drawings to represent the problem.
		K.OA.3: Decompose numbers less than or equal to 10 into pairs in more than one way, by using objects or drawing, and record each decomposition by a drawing or equation.
		K.OA.4: For any number from 1 to 9, find the number that makes 10 when added to the given number.
		K.OA.5: Fluently add and subtract within 5.
	Work with Numbers 11-19 to Gain Foundations for Place Value.	
		K.NBT.1: compose and decompose numbers from 11 to 19 into ten ones and some further ones, by using objects or drawings, and record each composition or decomposition by a drawing or equation; understand that these numbers are composed of the ones and one, two , three, four, five, six, seven, eight, or nine ones.
4.3: Children begin to conceptualize measurable attributes of objects.		
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4.3: Children begin to conceptualize		K.MD: Measurement and Data

measurable attributes of objects.		
	Classify Objects and Count the Number of Objects in Each Category	
4.3.1: Sort, order, pattern, and classify object by non-measurable and measurable attributes.	13: uses classification skills 22: Compares and measures 23: demonstrate knowledge of patterns	K.MD.3: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
	Describe and Compare Measurable Attributes	
4.3.2: Begin to use accurate vocabulary to demonstrate awareness of the measurable attributes of length, area, weight, and capacity of everyday objects (e.g., long, short, tall, light, heavy, full).	22: compares and measures	K.MD.1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
4.3.3: Compare (e.g., which container holds more) and order (e.g., color, texture, type of material) up to 5 objects according to measurable attributes.	22: compares and measures	K.MD.2: Directly compare two objects with a measurable attribute in common, to see which object has “more” / “less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.
4.4: Children develop spatial and geometric sense.		
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4.4: Children develop spatial and geometric sense.		K.G: Geometry
	Identify and Describe Shapes (squares, Circles, Triangles, Rectangles, Hexagons, Cubes, Cones, Cylinders, and Spheres)	
4.4.1: Respond to and use positional words (e.g., in, under, between, down, behind).	21 a: understands spatial relationships	K.G.2: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.

4.4.2: Use accurate terms to name and describe some two-dimensional shapes and begin to use accurate terms to name and describe some three-dimensional shapes (e.g., circle, square, triangle, sphere, cylinder, cube, side point, angle).	21 b: understands shapes	K.G.2: Correctly name shapes regardless of their orientations or overall size.
		K.G.3: Identify shapes as two-dimensional (lying in a plane, “flat”) or three dimensional (“solid”).
	Analyze, Compare, Create, and Compose Shapes	
4.4.3: Manipulate, compare and discuss the attributes of: (a) two-dimensional shapes (e.g., use two dimensional shapes to make designs, patterns and pictures by manipulating material such as paper shapes, puzzle pieces, tangrams; construct shapes from material such as straws; match identical shapes, sort shapes based on rules; describe shapes by sides and/or angles; use pattern blocks to compose/decompose shapes when making and taking apart compositions of several shapes).	21 b: understands shapes	K.G.4: Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, attributes and other attributes (e.g., having sides of equal length).
(b) three-dimensional shapes by building with blocks and with other materials having height, width, and depth (e.g., unit blocks, hollow blocks, attribute blocks, boxes, empty food containers, plastic pipe).	21 b: understands shapes	K.G.5: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
		K.G.6: Compose simple shapes to form larger shapes.